



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF: SR-6J

February 29, 2012

Thomas W. Steib  
Vice President Manufacturing  
Detrex Chemicals Division  
Elco Corporation  
1100 N. State Road  
Ashtabula, OH 44004

Re: *Additional DNAPL Recovery Well Installation and  
Testing Work Plan*  
URS Corporation, February 2011

Dear Mr Steib:

EPA has completed its review of the subject work plan, transmitted on Detrex' behalf by Martin Schmidt of URS on February 6, 2012.

Our technical comments are attached. Please address the comments by preparing a revised or Draft Final version of the Work Plan, which should then be provided concurrently to EPA and the Fields Brook Action Group for review.

You have EPA approval to proceed with the MIP portion of the investigation on March 5 as scheduled. We would like to schedule a teleconference as soon as possible to discuss health and safety considerations so that we can plan appropriate oversight next week.

I can be reached by phone at 312 886-4843 if you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. Owen Thompson", is located below the "Sincerely," text.

W. Owen Thompson  
Remedial Project Manager  
Superfund Division

Attachment

cc: Peter Felitti, U.S. EPA, C-14J  
Regan Williams, Ohio EPA NEDO  
Robert Currie, Detrex  
Tom Doll, Detrex  
Martin Schmidt, URS  
William Earle, SulTRAC

**U.S. Environmental Protection Agency Region 5**

**TECHNICAL REVIEW COMMENTS ON  
“ADDITIONAL DNAPL RECOVERY WELL INSTALLATION  
AND TESTING WORK PLAN”  
URS Corporation, February 2012**

**DETREX RD/RA SOURCE CONTROL AREA - FIELDS BROOK SUPERFUND SITE  
ASHTABULA, OHIO**

Comments Prepared February 29, 2012

**SPECIFIC COMMENTS**

1. Section 1.1, Page 1-2: The text states “As agreed with USEPA, 12 of the 36 proposed recovery wells were installed to evaluate...” 40 recovery wells were proposed in the ROD, please revise.
2. Section 1.1, Page 1-3: The text states, “Detrex also continues to believe that the ESD is the best technical approach to addressing the DNAPL issues at the Site.” The draft Explanation of Significant Difference (ESD) document presents the best technical approach to confining dense nonaqueous-phase liquid (DNAPL) to the site; however, it is not the best technical approach for recovering and removing DNAPL from the subsurface. The text should be revised to clarify this difference.
3. Section 2.1.1, Page 2-1: The text states that Figure 2-1 depicts the location of the existing DNAPL recovery wells. Please revise Figure 2-1 or add another figure to depict the location of the existing wells. The text also states that the DNAPL recovery system has recovered an estimated 16,000 gallons of DNAPL. Revise this to 18,000 gallons.
4. Section 2.3.2, Page 2-4: The text proposes two test trenches installed in the former lagoon area to evaluate migration pathways and accumulation areas for DNAPL. The trenches are proposed to be 15 to 18 feet deep, 2 feet wide, and 50 to 100 feet long. The proposed narrow width and wide depth of the trenches will make safe inspection difficult. The text should be revised as needed to include a more detailed description of how the trenches will be inspected and safety measures put in place to protect workers.
5. Section 2.3.2, Page 2-4: The text states that the two test trenches will be 50-100 feet long. The text should be revised to explain how the final trench length will be determined.
6. Section 2.3.2, Page 2-5: The text states that test trench soils will be temporarily stockpiled on site and backfilled into the trenches upon completion of the trench observation. The text should be revised to include the location of the stockpile area and procedures for creating the temporary stockpile area, including procedures for preventing the spread of contamination and the monitoring and suppression of vapors from DNAPL impacted soils.
7. Section 2.3.3, Page 2-5: The “Additional DNAPL Recovery Well/Slurry Wall Design Work Plan” states that the membrane interface probe (MIP) will be driven at 1 foot per minute (URS 2011). The text in the current work plan should be revised to describe how the probe will be advanced. For example, it could be advanced continuously or set at different depths using the push-and-hold method. The push-and-hold method may be slower overall, but in heterogeneous subsurface materials (like those at the site), this method can provide better data. In addition, the text does not state if any quality control (QC) samples

will be collected during the MIP investigation. The text should be revised to describe how many and which type(s) of QC samples will be collected, including how many trip blank and field duplicate samples. Also, the text should be revised to state how the MIP gas and tubing will be checked and monitored during the investigation and how frequently the gas and the MIP will be serviced during the investigation. Finally, the text states that “upon completion of each location, the dataset is wirelessly delivered to remote servers location in Columbia’s headquarters.” The text should be revised to indicate how frequently the data will be reviewed by the field geologist during the field investigation.

8. Section 2.3.4, Page 2-6: The text states that an interface probe “will only be used in monitoring wells [to gauge DNAPL thickness] that routinely contain DNAPL” and all other locations will be assessed for the presence of DNAPL using a bailer. The same method should be used at all locations to ensure consistent results. The text should be revised to state locations that routinely contain DNAPL will be either gauged using both an interface probe and a bailer or in the same way for all locations. In addition, the text should be revised to state that the interface probe will be properly decontaminated between all locations.

9. Section 2.3.4, Page 2-7: The text states that initial DNAPL recovery testing will be performed by “[monitoring] time/rate of DNAPL increases in volume...[and monitoring] time/rate of DNAPL inflow (return).” The text should be revised to provide details on how the DNAPL volume change will be measured during initial DNAPL recovery testing.

10. Section 2.3.4.1, Page 2-7: The text states that physical characteristics of the DNAPL will be determined, including “surface tension of NAPL; and interfacial tension of water and DNAPL.” The text should be revised to provide details on how surface and interfacial tension will be measured, using both qualitative and quantitative methods if possible.

11. Section 2.3.5, Page 2-8; and Figures 2-4 and 2-5: The text states that “new DNAPL recovery wells will be installed in 12-inch diameter boreholes”; however, Figures 2-4 and 2-5 show the boreholes as having a 10-inch-diameter. The text and figures should be revised as needed to resolve this discrepancy.

12. Section 2.3.5, Page 2-9: The text states that “currently contemplated/proposed well construction details are presented in Figures 2-3 through 2-4.” Figure 2-3 shows the existing recovery well design, and Figure 2-4 shows the new proposed well design. The text should be revised to explain how each design will operate, the differences between the existing and proposed designs, and how the two designs will be evaluated and selected during the recovery well design and testing phases.

13. Section 2.3.5.3, Page 2-9: Revise “Investigative-derived water” to “Investigative-derived waste”. The text discusses the plan for investigation-derived waste handling during the proposed work. The proposed plan is to “prepare an area within the footprint of the former lagoon area for subsequent use as a soil management area [SMA].” The SMA is located in an area where recovery wells may be installed in the future. The text should be revised to discuss anticipated impacts, if any, of installing recovery wells through the stockpiled waste material in the SMA.

14. Section 2.3.6.2, Page 2-11: The text states that “Presently, URS has to mobile units...” Revise to “two mobile units”.

## REFERENCE

URS Corporation (URS). 2011. “Additional DNAPL Recovery Well/Slurry Wall Design and Work Plan, Detrex RD/RA Source Control Area - Fields Brook Superfund Site, Detrex Corporation, Ashtabula, Ohio.” September.